

REMARKS

In the Office Action of 04/21/05, the Examiner has rejected claim 18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,124,031 to Mensink et al. (the Mensink patent), rejected claims 1-2 and 4-13 under 35 U.S.C. § 103(a) as being unpatentable over the Mensink patent in view of U.S. Patent No. 6,164,284 to Schulman et al. (the Schulman patent), and claims 19 and 21-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Mensink patent. Claims 1 and 18 have been amended herein to more clearly recite the present invention. Following this amendment, claims 1-2, 4-13, 18-19, and 21-30 are pending.

The present invention is directed toward a system that enables or disables at least a portion of the output circuitry of an implantable device, i.e., a stimulator, in response to detection of an identifiable timing sequence of the application and removal of an externally provided magnetic field. Essentially, since the function of a stimulation device is to output pulses to neuromuscular tissue, the interlock of present invention allows the device to be directly turned on or off in response to the predefined magnetic sequence and is a valuable safety function to avoid undesirable or catastrophic events (see specifically paragraph 73 of the specification and paragraph 74 of the published application 2003/0167078).

For example, claim 18 recites:

A system for selectively enabling/disabling at least a portion of the output circuitry of an implantable device in response to an externally applied pulsed magnetic field, wherein said implantable device is configured for stimulating tissue within a patient's body, said system comprising:
a sensor within said implantable device sensitive to the presence of an externally applied magnetic field;
a controller within said implantable device coupled to said sensor for monitoring the presence of said externally applied magnetic field and determining a timing sequence for

the application and removal of said externally provided magnetic field; and wherein

said controller is configured to enable/disable at least a portion of the output circuitry of a selected one of said implantable devices in direct response to detection of an identifiable timing sequence of the application and removal of said externally provided magnetic field.

(Emphasis added)

In contrast, the Mensink patent describes the use of a magnet "in such a way as to key, or unlock the programming circuit portion, such that the programmer circuitry is then enabled to proceed to carry out a corresponding change in a selected operating parameter" (see col. 7, lines 64-66, emphasis added). Thus, the Mensink interlock is solely to enable the programming portion of the implantable device while the present invention is directed toward an interlock sequence of magnetic pulses where the "controller is configured to enable/disable at least a portion of the output circuitry of a selected one of said implantable devices in direct response to detection of an identifiable timing sequence of the application and removal of said externally provided magnetic field". The present invention is quite different from that described in the Mensink patent. Specifically, the Mensink patent describes a key to solely enable their device to be programmed while the present invention described a key to enable or disable the output circuitry of the device. Additionally, the present invention is directed toward a selected implantable device (see elements 108 and 303) while the Mensink patent is directed toward a single device. The Applicants are unaware of any application for multiple pacemakers in a patient.

Accordingly, for the reasons stated above, Applicants assert that independent claim 18 of present invention is patentably distinct from that described in the Mensink patent. Dependent claims 19 and 21-30 further limit the scope of independent claim 18 and accordingly are likewise patentable over the cited art. Similarly, independent claim 1 incorporates the same limitations of independent claim 18 with the exception of additionally reciting size limitations for the implantable device which are not needed to distinguish the present invention from the prior art. Accordingly, independent claim 1

and its dependent claims 2 and 4-13 are similarly patentable over the cited art. Following this amendment, claims 1-2, 4-13, 18-19, and 21-30 are pending and Applicants assert that they are now allowable.

Finally, it is Applicants' understanding that once the patentability of the independent claims (1 and 18) has been shown that the withdrawn dependent claims may be reinstated as patentable subject matter in the present application. Accordingly, allowance of withdrawn claims 3 and 20 are additionally requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (661) 702-6700 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,



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5/13/05
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